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| 0028110 | DATA SHEET |  |
| valid from: 01.01.2019 | ÖLFLEX® ROBOT 900 P | |

Application

ÖLFLEX® ROBOT 900 P is a special cable for torsion and bending stresses. They can be used for the transmission of control and monitoring signals or as supply cables. They are also suitable for use in dry, damp or wet areas. They are suitable for outdoor use if the indicated temperature range is observed.

ÖLFLEX® ROBOT 900 P are increased resistant to oils and at room temperature largely resistant to acids and alkalis.

The outer sheath withstands high mechanical stresses, in particular abrasion and dragging. It is also cut proof and resists microbes and hydrolysis.

They are suitable for linear, automated movements, as well as torsional applications in robots and automated handling machines. The maximum tensile load is 15 N/mm² of conductor cross-section during installation and operation. Compulsory guidance is not permitted.

Application range:

Inside of dresspacks of buckling arm robots and for use for gantry robots, industrial machinery and machine tools, automated handling equipment, automotive industry, in power chains or moving machine parts

Design

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| Design | based on EN 50525-2-21 resp. VDE 0285-525-2-21 |
| Conductor | fine resp. extra fine wire strands of bare copper, acc. to IEC 60228 resp. VDE 0295, class 5 resp. class 6 |
| Insulation | TPE (Thermoplastic Elastomer) |
| Core identification code | with up to 0.34 mm ² : acc. to DIN 47100 more than 0.5 mm ² : acc. to VDE 0293-1, with or without GN/YE protective conductor black cores with white numbers acc. to DIN EN 50334 resp. VDE 0293-334 Cores from screened pair (2x1): no. 1 and 2 |
| Stranding | cores are stranded in layers version with additional pair: 2 cores twisted to a pair, PTFE foil wrapping, layer of tinned copper wires, sheath |
| Taping | PTFE foil wrapping |
| Outer sheath | Polyurethane compound TMPU in acc. to EN 50363-10-2 resp. VDE 0207-363-10-2, flame retardant colour: black, similar RAL 9005 |

Electrical properties at 20°C

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| Rated voltage | with up to 0.34 mm ² : 48 V AC peak working voltage: 350 V (not for power applications) more than 0.5 mm ² : U ₀ / U: 300 / 500 V |
| Test voltage | with up to 0.34 mm ² : 1500 V AC more than 0.5 mm ² : 3000 V AC |

Mechanical and thermal properties

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| Minimum bending radius | flexing: 15 x cable diameter fixed installation: 4 x cable diameter |
| Temperature range | flexing: -40 °C up to +80 °C max. conductor temp. fixed installation: - 50 °C up to +80 °C max. conductor temp. |
| Torsional stress | max. torsion angle: ± 360° /m |
| Flammability | flame retardant acc. to IEC 60332-1-2 resp. VDE 0482-332-1-2 |
| Oil resistance | acc. to EN 50363-10-2 resp. VDE 0207-363-10-2 |
| Tests | acc. to IEC 60811, EN 50395, EN 50396 |
| General requirements | with up to 0.34 mm ² : These cables are conform to the EU-Directive 2011/65/EU (RoHS, Restriction of the use of certain hazardous substances). more than 0.5 mm ² : These cables are conform to the EU-Directive 2014/35/EU (Low Voltage Directive) |

AbN
automation

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